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| EXAMINER |
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MITCHELL, JASON D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/820,295 | Applicant(s) CONNELL ET AL. | |
| | Examiner Jason Mitchell | Art Unit 2193 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to a request for continued examination filed on 9/19/08.
2. Claims 1-29 are pending in this application.

Response to Arguments

3. **Applicant's arguments filed 9/19/08 have been fully considered but they are not persuasive.**

4. In the par. bridging pp. 7-8, the applicants state:

Independent Claim 13 recites the feature of a tangible "system comprising: a global repository; ... wherein the global repository is configured to: model ...; translate...; ...; store ...; and automatically generate." A claim reciting a system performing physical operations does not preclude patentability. The MPEP in Section 2114 states that the "features of an apparatus may be recited either structurally or functionally." The fact that the functions claimed in Claim 13 could possibly be implemented in whole or in part as software is not relevant because Claim 13 clearly claims a tangible system. For example, a "global *respository*" is most certainly a tangible item. Accordingly, independent Claim 13, and dependent Claims 14-18 which depend there from, are indeed directed toward statutory subject matter in compliance with 35 U.S.C. § 101. Applicants respectfully assert that Claims 13-18 are patentable and request the withdrawal of the rejections of these claims.

The examiner respectfully disagrees. "The fact that the functions claimed ... could be ... implemented in whole ... as software" is in fact very relevant. A claim directed to a system comprised of nothing but software per se. is not statutory (see e.g. MPEP 2106.01(I)). Further, as claimed, the "global repository" does not necessarily comprise some form of computer readable media or other computer hardware that would make the claim statutory. In other words, as currently claimed the "global repository" merely recites the abstract idea of a collection of data (also abstract ideas) and thus fails to make the claim statutory.

In the last par. on pg. 9, the applicants state:

In the present invention as recited in amended independent Claim 1, the global repository is configured to model network element commands, events, and data from a plurality of sources in a first modeling language. The global repository is also configured to translate data represented in a first modeling language to data represented in a second modeling language. Paragraph [0004]. Courtney does not teach translating from a first modeling language to a second modeling language, as it merely shows converting a non modeling language (CLI) configuration into a XML or DOM configuration. Because there is no mention in Courtney of translating from one modeling language to another, for example from SIM to XML, Courtney cannot teach or suggest the features of Claim 1. For at least this reason, Applicants respectfully assert that Claim 1 is patentable over Courtney and request that the rejection to Claim 1 be withdrawn.

The examiner respectfully disagrees. While it is correct that Courtney's ultimate goal is to convert a non-standard interface to a standard interface (e.g. CLI-GUI as the applicant points out on pp. 8-9) this goal is achieved by first translating data in a first modeling language (par. [0016] "[a] configuration in a native format") to data in a second standard modeling language (see e.g. par. [0036] "convert the active command format for the network device 165 into an XML and/or DOM format."). It should be noted that a devices retrieved "configuration" is not the same as the native interface used to interact with the device (e.g. a Command Line Interface or CLI). Instead the configuration defines (models) the commands (language) used to interact with the device (see e.g. par. [0049] "retrieves the configuration ... identifies each initial command within each configuration line"). Accordingly it should be seen that Courtney discloses the claimed transformation.

The applicants' additional arguments (pp. 10-11) refer to and rely on the arguments addressed above and are likewise unpersuasive.

Claim Objections

5. **Claim 13 is objected to because of the following informalities:** The claim recites "the first interface being communication with the global repository". It is believed this should read "*in* communication with the global repository". Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 1 recites "a plurality of a same type of sources". The claim does not make it clear what would distinguish one type of source from another. The specification does not provide any further guidance. Accordingly those of ordinary skill in the art would not be fully apprised of the intended scope of the claim.

Claims 13 and 19 make similar recitations and are thus likewise rejected.

Claims 2-12, 14-18 and 20-29 depend from one of claims 1, 13 and 19 and do not correct this issue and are thus also rejected for the reasons given above.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claims 13-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claim 13 fails to fall within a statutory category of invention. It is directed to a program itself (i.e. a software system comprising a global repository and a pair of interfaces), not a transformation of an article occurring as a result of executing the program, a machine programmed to operate in accordance with the program or a manufacture structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functionality. It's also clearly not directed to a composition of matter. Therefore it is rejected as being non-statutory under 35 USC 101.

Claims 14-18 depend from claim 13 and do not address this issue and are thus also rejected as being non-statutory under 35 USC 101.

Claim 19 is not limited to statutory embodiments. The claim recites "A computer program product, tangibly embodied in an information carrier". The applicants have not provided an explicit definition of an "information carrier". Those of ordinary skill in the art could reasonably interpret this term as including such non-statutory embodiments as infra-red waves and/or signals. As such, the claim is not limited to statutory subject matter and is therefore non-statutory. Appropriate clarification is required.

Claims 20-29 depend from claim 19 and do not address this issue and are thus also rejected as being non-statutory under 35 USC 101.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1-2, 5-7, 9, 11-14, 17-20, 23-26 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2003/0046370 to Courtney (Courtney).**

12. **Regarding Claims 1, 13 and 19:** Courtney discloses:

modeling network element commands, events and data from a plurality of a same type of sources in a first modeling language (par. [0016] retrieving a the [sic] network device's configuration in a native format"; the examiner considers Courtney's "network device[s]" to broadly represent a 'same type of sources', however it is noted that Courtney's system will also handle a network with e.g. more than one "Cisco[™] router" see par. [0011] meeting a narrower interpretation of the claim);

translating data represented in a first modeling language to data represented in a second modeling language (par. [0036] "convert the active command format for the network device 165 into an XML and/or DOM format");

storing the data in the second modeling language in a global data model repository (par. [0036] "The resulting DOM can then be stored in the DOM storage device 180"); and

automatically generating code to support an external management interface based on the stored data in the global repository (par. [0040] "the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices").

In the case of claim 13 it is noted that Courtney further discloses:

a Global repository (Fig. 4, Schema Storage 170);

a first interface to a plurality of sources (Fig. 4, Router 165 & Optical Component 165), the first interface being in communication with the global repository (Fig. 4, Network 225; also see par. [0035]); and

a second interface to an external interface (Fig. 4, 175; par. [0038] "the GUI used by the system administrator 175") the second interface being in communication with the global repository (Fig. 4, Network 225; also see par. [0035]).

13. **Regarding Claims 2, 14 and 20:** The rejections of claims 1, 13 and 19 are incorporated respectively; further, Courtney discloses automatically generating system documentation based on the stored data (par. [0038] "the system administrator 175 is presented with network device configurations in a standard, consistent format").

14. **Regarding Claims 5, 17 and 23:** The rejections of claims 1, 13 and 19 are incorporated respectively; further, Courtney discloses the second modeling language is extensible markup language (XML) (par. [0036] "convert the active command format for the network device 165 into an XML ... format").

15. **Regarding Claims 6 and 25:** The rejections of claims 1 and 19 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code to implement a command line interface (CLI) (par. [0040] "the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices").

16. **Regarding Claim 7:** The rejection of claim 1 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code to implement an Extensible Markup Language interface (par.[0039] "the standard XML-to-native XML converter").

17. **Regarding Claims 9 and 26:** The rejections of claims 1 and 19 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code to implement of a configuration database (par. [0045] "an XML storage device 250").

18. **Regarding Claims 11 and 28:** The rejections of claims 1 and 19 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code to assist in implementation of an Application Program Interface (par. [0043] "The DOM applications can also include an (API)").

19. **Regarding Claims 12, 18, 24 and 29:** The rejections of claims 1, 13 and 19 are incorporated as appropriate; further, Courtney discloses modeling includes modeling run- time system data from a plurality of sources using at least one of the first language and the second language (par. [0036] “The DOM generator 160 then retrieves the configuration from the network device 165”).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. **Claims 3, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0046370 to Courtney (Courtney).**

22. **Regarding Claims 3, 15 and 21:** The rejections of claims 2, 14 and 20 are incorporated respectively; further, Courtney does not explicitly disclose the generated documentation corresponds to code generated to support an external management interface.

23. Courtney does teach ‘conventional’ systems (par. [0031] “Fig. 2 [is] one type of conventional router”) that generate documentation corresponding to device interfaces

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(par. [0032] "the system administrator 125 can review available configuration commands and associated bounds by accessing and reviewing the commands stored in the command storage module 140").

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to generate system documentation (par. [0038] "the system administrator 175 is presented with network device configurations in a standard, consistent format") corresponding to code generated to support an external management interface (par. [0040] "the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices"). Those of ordinary skill in the art would have been motivated to make this modification in order to provide a "help" screen (see par. [0032]) to administrators using the disclosed GUI to re-configure a displayed network (par. [0038]).

25. **Claims 4, 8, 10, 16, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0046370 to Courtney (Courtney) in view of Applicant Acknowledged Prior Art Techniques.**

26. **Regarding Claims 4, 8, 10, 16, 22 and 27:** The rejections of claims 1, 13 and 19 are incorporated as appropriate; further Courtney does not disclose use of SMI, SNMP or SNMP subagents.

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27. Applicant acknowledges the Simple Network Management Protocol (SNMP) and its associated SMI language and subagents were known and used in the prior art to describe network devices (see e.g. pg. 10, line 13-23).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expand Courtney's system with a converter (par. [0016] "retrieving a network device's configuration, in a native format, from the network device ... and converting it into a standard-format configuration") to handle the configurations and commands of devices defined using SNMP and its associated SMI language and subagents (par. [0016] "retrieving a network device's configuration, in a native format"). Those of ordinary skill in the art would have been motivated to make such a change in order to provide a user friendly interface to devices whose interfaces conform to the SNMP specification (par. [0013] "a system and method are needed ... to create user-friendly interfaces for ... devices"; par. [0016] "allow system administrators to use the same standard configuration format across multiple ... network devices").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Jason Mitchell
10/21/08